NPDES Permit Number: MAR10D585

Project Name:	**Route 62 Roadway Resurfacing and Reconstruction**
Project Address:	Route 62 Concord, Massachusetts
Project Proponent:	**Town of Concord Public Works/ MHD**
Report Prepared By:	Mary Trudeau, Environmental Consultant
Date of Report/Site Visit:	October 9, 2009

Weather this work week was warm and dry with no significant rainfall events. There was an insignificant amount of precipitation during my site visit on October 9, 2009 and significant rainfall occurred last weekend, October 3 and 4, 2009. At the date of my visit on October 9, 2009, it was apparent that work had progressed throughout the week. Slopes had been worked; sidewalks and shoulders were being graded; and drainage work was ongoing. The Contractor estimates that binder paving should be completed within the next two to three weeks. Grinding is scheduled to commence Tuesday October 13, and grading should start four or five days later.

As noted in last weeks report, the contractor installed a new drainage structure at the junction of Route 62 and the Assabet River, at the Acton town line. The installation of this structure (on the northeast quadrant of the intersection) resulted in the disturbance of soils adjacent to the existing catchbasin in the locus. A liner was added to the structure prior to the rain event on October 3 and 4, 2009. The following photos show this work area:

While the majority of the drainage structures within active work areas are protected, I did find a few other catch basins within disturbed watersheds that should also be protected. As grading work is scheduled to commence, it is important that all structures be protected to prevent unintended filling with loose materials. I have discussed these structures with Alan Visco, and he agreed to get liners for the catch basin located at approximately station point 25+50 on the south side of Route 62, and the catch basin located just west of Cranberry Lane, also on the south side of Route 62. The following photos show the structures :

Recent activity at the shoulder of Route 62, north of the outfall located at station point 23+25 has caused instability above the outfall. While it appears that the recent work is related to the installation of a new catchbasin and manhole within the right of way, material is sliding downgradient to the drainage outfall. This is causing loose sediments to accumulate at the opening of the drainline shown below. The Contractor should complete this work, remove the excess fill and stabilize the slope below Route 62 as quickly as possible. The following photos show this area of concern:

I also had some residual concern with the outfall at station point 15+00, on the north side of Route 62. While the erosion controls looked intact, it was apparent that there has been some historic discharge of sediment to downgradient buffer zone and wetland resource areas. While I suspect the discharge happened several weeks ago, the recent die back of the herbaceous plants in the locus has revealed the drainage patterns below the outfall. While the accumulations are not significant, the contractor should send a laborer to rake and remove any deposits of material. The following photo shows this area on October 9, 2009:

As noted in earlier reports, I am concerned with the upcoming detailing of the slope adjacent to either end of the easternmost retaining wall. This wall is located at approximately station point 27+50, on the south side of Route 62. I spoke with Alan Visco of EH Perkins Construction and noted that I am concerned that the work should include stone and hand work to stabilize the area at either end of the wall. The contractor should insure, particularly on the eastern end of the wall (left hand photo below) that the materials used to stabilize the slope utilize the erosion controls for support. The toe of the finished slope should be set, and stabilized, at the back side of the retaining wall, and should not encroach onto the down gradient silt fence barrier. The following photo shows the areas of concern, as well as the recently installed hay bales above the new wall (at the southern edge of Rt 62):

Also noted in earlier reports, Mrs. Sulewski, a condominium owner on Cranberry Lane noted that a tree fall at the south side of Route 62, at approximately station point 25+75 has fallen into and across her yard. Alan Visco and Minot Wood of EHPerkins Construction have determined that the tree fall is within forty feet of the centerline of the road (and is their responsibility) and that it will be cut and removed when the tree cutting crew returns to the site. The following photo shows the tree roots within the job locus:

In summary, the following is a list of tasks that should occur at the end of each work day, and/or after any rain event, as well as those tasks that should be done this week in response to this report:

1. The contractor should replace the catch basin liners in the drainage structure at station point 25+50 on the south side of Route 62 and within the structure to the west of Cranberry Lane (station point 23+90).
2. All catch basins should be lined with geo textile paper prior to the commencement of road grading activities.
3. The contractor should address the sedimentation that has occurred down gradient of the drainage outfall at station point 15+00. Raking and hand work is the appropriate remediation.
4. The contractor should discuss the potential for elimination of the 2 foot wide grass strip on the north side of Route 62, between station points 10+50 and 17+00.
5. The contractor should consider the slope treatment of either end of the retaining wall at station point 27+00, on the southern shoulder of Route 62, and should plan on hand work in the more sensitive areas.
6. The contractor should remove the tree fall at station point 25+75. It should be cut and removed from the site.
7. There is also a little pile of slash on the south side of the erosion controls at station point 28+25 (south side of Route 62) that should be pulled and disposed of off site. This was left by the tree cutters in the initial clearing of the site.

8. After a rain event, inspect each catch basin liner. Torn liners should be replaced; silted liners should be removed, cleaned and replaced.
9. In general, pavement adjacent to catch basins should be swept or shoveled to remove excess sediment deposits from the perimeter of the catch basins.
10. Excess sediment should be swept from the pavement in areas where sediment has been deposited during the work day. Brooms and hand shovels should be on site every day.
11. If there has been a rain event, the contractor should walk the length of the erosion and siltation control barrier and make necessary repairs, including the removal of sediment deposits from the erosion controls. A hand shovel and staple gun should be onsite to make these repairs.
12. In areas where work is located in close proximity to the erosion controls, the contractor shall make sure that any loose sediment, branches or debris that maybe piled against the straw wattles and silt fence is removed.

As noted in past weeks reports, the rough sequence of activities is roughly as follows:

1. repair and maintenance of the required erosion and siltation control barriers (ONGOING);
2. installation of signage and staging of the project (ONGOING);
3. survey work to establish the limits of the project (COMPLETED);
4. clearing and grubbing within the limit of work line (LARGELY COMPLETED);
5. construction of the various retaining walls along the roadway (COMPLETED);
6. removal and replacement or improvement of drainage structures and outfalls (ONGOING);
7. roadway reconstruction and resurfacing between the Assabet River at the Maynard Town Line to approximately Water Street, to the east (ONGOING).

Based on my site inspections this week, it is my professional opinion that with the repairs requested or noted above, the project will be in compliance with, both, the NPDES permit and the Order of Conditions issued by the Concord Natural Resources Commission.

Mary Trudeau, Wetlands Consultant
October 11, 2009